

## Meet the Invasive Species Challenge. Know the NISC Plan, Manage the Problem

### The Problem

For centuries, people have moved organisms around the world. The majority of U.S. row crops, domesticated animals, some game species and ornamental plants are non-native or non-indigenous species. For the most part, introductions of these exotic or alien species have proven to be beneficial or benign. For example, well-managed livestock, though non-native, are not invasive. However, a small percentage of the organisms which are introduced into new environments cause serious problems and are collectively known as “invasive species.” Invasive species can harm the environment, the economy, crops, animal health, and in some cases human health. Examples include:

- **Zebra mussel**, an invader of the Great Lakes and Mississippi River Basin, is estimated to have an economic impact of \$200 million per year for industrial users.
- **Yellow star thistle**, an invasive weed from the Balkan-Asia minor area, currently infests more than 20 million acres, or 22 percent, of the state of California.
- **Gypsy moth**, an invasive insect from Eurasia, now has a large enough population in the United States to eat all the leaves of 13 million trees in one season.
- **Eurasian watermilfoil**, a submerged plant, infests 45 states and parts of Canada, including 130 lakes in Minnesota and 40 bodies of water in Vermont.
- **Nutria**, an invasive rodent from South America, each year destroys 1 million acres of wetland vegetation in the wildlife refuge system alone.
- **Exotic Newcastle disease or END**, a contagious and fatal viral disease affecting all species of birds with mortality rates are up to 90 percent of exposed birds. In 2003, the government spent millions of dollars eradicating an outbreak of END in California, Texas, New Mexico, Arizona, and Nevada.

As international and domestic commerce and tourism increases, so too does the movement of species. This movement creates pathways, oftentimes unexpected and both legal and illegal, for the entry of invasive species. The more movement, the more potential there is for invasive species introductions. Some examples of pathways include: species that “stow away” on commodities such as food or livestock; travelers, luggage, ships, cars, boats, equipment and aircraft on which a species can stow away; smuggled fruits and vegetables; nursery stock, seeds, pets, and aquaria; non-native species that escape from aquaculture facilities; species that “hitchhike” on military equipment; ballast water discharged from ships; and plant materials or animals imported for agriculture.

Invasive species are the second leading cause—after habitat loss—of species being listed as endangered or threatened, and infest more than 100 million acres across all 50 states. They do not respect borders and cause severe problems that are local, regional, national and global in scope. In the United States, it is estimated by some scientists that invasive species cost the U.S. economy an estimated \$137 billion per year. Invasive species are an urgent and accelerating problem, illustrated in part by the increase in the rates of introduction and spread of invasive species and the increase in the cost of controlling even a single species. For example, dealing with the still spreading zebra mussels cost about \$100 million a year, and aquatic weeds like water hyacinth and giant salvinia often restrict the use of commercial waterways.

Throughout the 1990s, as more and more examples of data about the harm caused by invasive species continued to emerge, alarmed scientists, farmers, ranchers and others wrote to the vice president expressing their concerns regarding the negative impacts of invasive species. All agreed that invasive species issues cross government jurisdictions and require creative use of resources and talent to combat.

### Prepare, Prevent, Protect: The National Invasive Species Council

In February of 1999, the National Invasive Species Council (NISC) was established by Executive

Order 13112 to provide leadership and coordinate federal efforts to curb invasive species. NISC is an inter-departmental council that helps to coordinate and ensure complementary, cost-efficient and effective federal activities regarding invasive species. Council members include the Secretaries of the Interior, Agriculture, Commerce, State, Defense, Homeland Security, Treasury, Transportation, Health and Human Services, as well as the Administrators of the Environmental Protection Agency and the U.S. Agency for International Development. The Council co-chairs are the Secretaries of the Interior, Agriculture, and Commerce.

NISC actively works with the Invasive Species Advisory Committee (ISAC). The ISAC was established to advise the federal government on the issue of invasive species and to act as representatives of the many interested parties and stakeholders. The approximately 29 members of ISAC advise and make suggestions to assist NISC in its coordination and communications about invasive species issues.

One key to achieving success against the many challenges presented by invasive species was the development and distribution of the National Invasive Species Management Plan to provide a framework for a wide variety of stakeholders to come together and strategically begin to solve the problems caused by invasives.

The NISC plan tries to link together the multitude of resources—human and capital—expended in this struggle. NISC can make the greatest impact as a cataloger of information and funnel for connecting appropriate parties into a coordinated team working to reduce damage and prevent future incursions.

Together NISC and ISAC want to engage people to meet the invasive species challenge. Know the NISC plan, help manage the problem. To work together to prepare, prevent, and protect ecosystems, natural, and agricultural resources for and from threats posed by invasive species.

The NISC National Management Plan helps focus the discussion and information on the very complex topic of invasive species into several key areas.

To meet the invasive species challenge:

- **PREPARE**—Leadership and Coordination, Research, Information Management
- **PREVENT**—Prevention, Early Detection and Rapid Response, International Cooperation
- **PROTECT**—Control and Management, Restoration, Education and Public Awareness

These key areas form a strategic framework for specific activities and initiatives further developed in the NISC plan and other NISC documents. The work of NISC and member agencies spans a wide spectrum, so this framework helps bring the picture together to show efforts to combat invasive species together.

### For More Information

Further information on all the items and activities discussed here is available on the NISC Web site. Point your Internet browser to <http://www.invasivespecies.gov>.

The Web site contains information on NISC, ISAC, and links to member agencies. The complete text of the NISC National Management Plan is available there as well. The development and ongoing enhancement of the [Invasivespecies.gov](http://www.invasivespecies.gov) Web site is an important component of the NISC National Management Plan.

In the future, you will be able to find more ways you can make a difference in this battle on the Web site too. You can write to NISC for more information, although please be advised Federal mail is subject to a clearance and screening process that adds time to delivery, to: National Invasive Species Council, U.S. Department of the Interior, Office of the Secretary, 1849 C Street, N.W., Washington, DC 20240.

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